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EXAMINER	
BUTLER, DENNIS	
ART UNIT	PAPER NUMBER
2115	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/644,978	DUNSTAN ET AL.	
	Examiner	Art Unit	
	Dennis M. Butler	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 November 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-18,20-32 and 34-47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-18,20-32 and 34-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. This action is in response to the RCE application and amendment filed on November 24, 2006. Claims 1, 3-18, 20-32 and 34-47 are pending.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Applicant's original specification does not provide antecedent basis for the term "tangible". Therefore, the specification fails to provide the meaning of the term "tangible" as used in claims 32-47. See MPEP 608.01(o).

3. Claims 32-47 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims are directed to a machine accessible medium containing instructions that cause functions to be performed at some future time when the instructions are executed. Applicant has defined the medium as a signal in paragraph 33 of the published application. Therefore, the claims are directed to an electro-magnetic signal, a carrier wave, electrical, optical and acoustical signals that are a form of energy. The claims recite a signal encoded with functional descriptive material. The signal is nonstatutory because it is a form of energy and it does not fall within any of the categories of patentable subject matter set forth in 35 U.S.C. 101 as disclosed in the statute.

The rejection would be overcome if applicant amended the claims to recite a machine accessible storage medium in order to indicate that the claimed medium includes the storage media/devices described in paragraph 33 and excludes the electro-

magnetic signals, carrier waves, electrical, optical and acoustical signals as described in paragraph 33 of the published application.

In the remarks, applicant argues that the phrase "tangible" makes clear that the medium is a tangible medium. However, applicant's original specification does not provide antecedent basis for the term "tangible". Therefore, the specification fails to provide the meaning of the term "tangible" as used in claims 32-47. See MPEP 608.01(o). Since applicant may give a term used in the claims a special meaning, the examiner and the public cannot determine how the term "tangible" limits the claims. Applicant has provided several definitions of the word "tangible" and argues that these definitions make clear to the examiner and the public how the term "tangible" limits the claims. The examiner disagrees with applicant's contention. The cited definitions include a wide range of definitions from discernable by touch to substantial (real?) and capable of being perceived. Furthermore, applicant is capable of providing several other definitions of tangible at a later time that may further change the meaning of this claim limitation. The examiner has maintained the rejection because the term "tangible" is not considered to exclude electro-magnetic signals, a carrier waves, electrical, optical and acoustical signals as described in paragraph 33 of the published application. However, the claim language would be improved if the medium were claimed as a machine accessible storage medium in order to indicate that the claimed medium includes the storage media/devices described in paragraph 33 and excludes the electro-magnetic signals, a carrier waves, electrical, optical and acoustical signals as described in paragraph 33 of the published application. The examiners position is consistent with the

Office guidelines for examination of patent applications for patent subject matter eligibility published October 26, 2005. The guidelines are based on the USPTO's current understanding of the law and are believed to be fully consistent with binding precedent of the Supreme Court, the Federal Circuit and the Federal Circuit's predecessor courts. The guidelines address claims directed to electro-magnetic signals in annex IV (c), pages 55-57.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 3-18, 20-32 and 34-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Microsoft, OnNow Power Management Architecture for Applications in view of Shintani et al., Published US Application 2004/0019906.

Per claims 1 and 32:

A) Microsoft teaches the following claimed items:

1. configuring a data processing device to recognize a visual on state (on/working) and a visual off state (sleep) with the operating system determining and controlling the power states in the Overview of the OnNow Architecture section and with figure 1;

2. identifying a request to turn off the data processing device with the user pushing the front panel button in the Overview of OnNow Power States and Power Policy section and with figure 2.

3. transitioning the data processing device to the visual off state instead of turning off the data processing device with transitioning to the sleep state instead of transitioning to the soft off state in figure 2, with the Overview of OnNow Power States and Power Policy section and with the WM_POWERBROADCAST section on page 4.

B) The claims differ from Microsoft in that Microsoft fails to explicitly teach turning audible and visual indicators off in the visual off state as claimed.

C) However, Microsoft describes transitioning the device between the working state (visual on) and the sleep state (visual off) with figure 2. Microsoft describes that the sleep state is the default low power state and in the sleep state the processor is not executing code and no work is being accomplished for the user in the second paragraph of the Overview of the OnNow Architecture section. In addition, Microsoft describes that an OnNow PC appears to be either on or off

to a user and that the OnNow PC enters the sleep state (visual off) when the user pushes the front panel button to indicate that the current work session is over in the first two paragraphs of the Overview of OnNow Power States and Power Policy section. Microsoft clearly recites the goal of giving the user the appearance that the PC is off when it is actually in the sleep state. In addition Shintani teaches that it is known to turn audible and visual indicators off when the system is visually off and capable of processing data in the background with figure 3 and at paragraph 34. It would have been obvious to one having ordinary skill in the art at the time the invention was made to turn off audible and visual indicators in the visual off (sleep) state in order to provide the appearance to the user that the OnNow PC is off as described by Microsoft and to save power in the visual off state. In addition, turning audible and visual indicators off as claimed would intensify the perception that the device is in an off state. One of ordinary skill in the art would have been motivated to combine Microsoft and Shintani because of Shintani's disclosure that the audio-visual system can be implemented in a personal computer at paragraph 23. It would have been obvious for one of ordinary skill in the art to combine the teachings of Microsoft and Shintani because they are both directed to data processing systems that provide auxiliary power to processing circuitry while the data processing system appears off to a user in order to process data and respond to events while the system appears to be off.

Per claim 17:

A) Microsoft teaches the following claimed items:

1. a data processing device configured to recognize a visual on state (on/working) and a visual off state (sleep) with figure 1 and with the operating system determining and controlling the power states in the Overview of the OnNow Architecture section;

2. a human interface device (HID) coupled to the data processing device with the display device in figure 1, with the user interface and at the first paragraph of page 3;

3. a module capable of intercepting a request to turn off the data processing system (the user pushing the front panel button) and instead transitioning the data processing device to the visual off state (sleep) with the operating system module tracking/intercepting the user's activities including front panel button pushes and transitioning the data processing device to the sleep state instead of the soft off state, with figure 2, in the Overview of OnNow Power States and Power Policy section and in the WM_POWERBROADCAST section on page 4.

B) The claims differ from Microsoft in that Microsoft fails to explicitly teach turning audible and visual indicators off in the visual off state as claimed.

C) However, Microsoft describes transitioning the device between the working state (visual on) and the sleep state (visual off) with figure 2. Microsoft describes that the sleep state is the default low power state and in the sleep state the processor is not executing code and no work is being accomplished for the user in the second paragraph of the Overview of the OnNow Architecture section.

In addition, Microsoft describes that an OnNow PC appears to be either on or off to a user and that the OnNow PC enters the sleep state (visual off) when the user pushes the front panel button to indicate that the current work session is over in the first two paragraphs of the Overview of OnNow Power States and Power Policy section. Microsoft clearly recites the goal of giving the user the appearance that the PC is off when it is actually in the sleep state. In addition Shintani teaches that it is known to turn audible and visual indicators off when the system is visually off and capable of processing data in the background with figure 3 and at paragraph 34. It would have been obvious to one having ordinary skill in the art at the time the invention was made to turn off audible and visual indicators in the visual off (sleep) state in order to provide the appearance to the user that the OnNow PC is off as described by Microsoft and to save power in the visual off state. In addition, turning audible and visual indicators off as claimed would intensify the perception that the device is in an off state. One of ordinary skill in the art would have been motivated to combine Microsoft and Shintani because of Shintani's disclosure that the audio-visual system can be implemented in a personal computer at paragraph 23. It would have been obvious for one of ordinary skill in the art to combine the teachings of Microsoft and Shintani because they are both directed to data processing systems that provide auxiliary power to processing circuitry while the data processing system appears off to a user in order to process data and respond to events while the system appears to be off.

Per claims 6-8, 18, 21, 23-25 and 37-39:

Microsoft describes generating a request to turn off the device by pressing a button on the device, automatically generating the request based on coupled devices and inactivity with the last paragraph on page 2 and with the WM_POWERBROADCAST section on page 4. Microsoft describes identifying a request to turn on the data processing device and transitioning to the visual on state with the wake-up request, with figure 2 and with the Overview of OnNow Power States and Power Policy section.

Per claims 3-5, 9-16, 20, 22, 26-31, 34-36 and 40-47:

Microsoft teaches the claimed items as described above. The claims differ from Microsoft, OnNow Power Management in that Microsoft, OnNow Power Management fails to explicitly teach the elements recited in Claims 3-5, 9-16, 20, 22, 26-31, 34-36 and 40-47. Regarding claims 5, 22 and 36, Microsoft does not explicitly describe turning audible and visual indicators on and off as claimed. However, Microsoft describes transitioning the device between the sleep state (visual off) and the working state (visual on) with figure 2. Microsoft describes that the sleep state is the default low power state and in the sleep state, the processor is not executing code and no work is being accomplished for the user. In addition Shintani teaches that it is known to turn audible and visual indicators off when the system is visually off and capable of processing data in the background with figure 3 and at paragraph 34. It would have been obvious to one having ordinary skill in the art at the time the invention was made to turn off

audible and visual indicators in the visual off (sleep) state and turn on audible and visual indicators in the visual on (working) state in order to save power in the visual off state and perform audible and visual work in the visual on state. In addition, turning audible and visual indicators on and off as claimed would intensify the perception that the device is in an on or off state. Regarding claims 4 and 35, Microsoft describes identifying a request to turn on the data processing device and transitioning to the visual on state with the wake-up request, with figure 2 and with the Overview of OnNow Power States and Power Policy section. Regarding claims 3, 20 and 34, Microsoft describes that the operating system is in control of power state transitions. Microsoft further describes providing API extensions that provide for communication between the operating system and applications. Microsoft also describes interfacing the OnNow system with the ACPI specification. It would have been obvious to one having ordinary skill in the art at the time the invention was made to intercept a turn off request prior to receipt by the operating system in order to route requests such as legacy requests to the BIOS to the operating system. Microsoft describes a human interface device coupled to the data processing device with the display device in figure 1, with the user interface and at the first paragraph of page 3. Microsoft describes that the visual off state is the low power sleep state that turns off the processor at page 2 in the Overview of OnNow Power States and Power Policy section. Regarding claims 12-16, 28-31 and 43-47, Microsoft describes that the OnNow system achieves a vision of the always-on PC that can quickly resume

processing. Microsoft describes auto-saving files and device states when the system is going to sleep. It would have been obvious to one having ordinary skill in the art at the time the invention was made to intercept messages from the operating system to a graphics or audio controller and store the messages to memory in order to resume processing quickly with the audio and graphics controllers in the proper state to resume processing.

7. Applicant's arguments filed on November 24, 2006 have been fully considered but they are not persuasive.

In the Remarks, applicant has argued in substance that:

A. There is no description in the Microsoft reference of the visual off state as claimed. The visual off state tricks the user into believing that the device is off by turning all audio and visual indicators and any attached HIDs. Microsoft describes a low-power sleep state that is not a visual off state.

B. The visual off state makes no reference to any power levels on the device as does Microsoft. The Microsoft states are all essentially tied to power levels on the device, e.g., low power sleep state.

8. As to point A, the examiner disagrees with applicant's contentions. The examiner has pointed to the sleep state in Microsoft as corresponding to the claimed visual off state. The examiner has maintained the obviousness rejection and acknowledges that Microsoft does not explicitly teach turning audible and visual indicators off in the visual off state as claimed. However, the examiner asserts that Microsoft's sleep state otherwise corresponds to the claimed visual off state and renders the claims obvious in

view of Shintani. Applicant argues that the visual off state is different because it tricks the user into believing that the device is off. Microsoft describes defining three global states: working, sleep and off. Microsoft describes making the sleep state the default state the PC enters when the user pushes the front panel button instead of the off state. Microsoft further describes that an OnNow PC **appears to the user to be either on of off**. See the first two paragraphs of the Overview of OnNow Power States and Power Policy section and figure 2. Microsoft clearly describes giving the user the appearance that the PC is off when it is actually in the sleep state and capable of responding to wake-up events such as a modem or network communication. Therefore, Microsoft's sleep state tricks the user into believing that the PC is off. As to applicant's assertion that the visual off state tricks the user into believing that the device is off by turning **all** audio and visual indicators and **any** attached HIDs, this limitation does not appear in the claims. The claims call for turning off audible and visual indicators on the data processing device and on at least one HID. As described in the above rejections, Microsoft describes that the sleep state is the default low power state and in the sleep state the processor is not executing code and no work is being accomplished for the user in the second paragraph of the Overview of the OnNow Architecture section. In addition, Microsoft describes that an OnNow PC **appears to be either on or off to a user** and that the OnNow PC enters the sleep state (visual off) when the user pushes the front panel button to indicate that the current work session is over in the first two paragraphs of the Overview of OnNow Power States and Power Policy section. Microsoft clearly recites the goal of giving the user the appearance that the PC is off

when it is actually in the sleep state. It would have been obvious to one having ordinary skill in the art at the time the invention was made to turn off audible and visual indicators in the visual off (sleep) state in order to provide the appearance to the user that the OnNow PC is off as described by Microsoft and to save power in the visual off state. In addition, turning audible and visual indicators off as claimed would intensify the perception that the device is in an off state. Furthermore, it would be obvious to turn off audible and visual indicators in the visual off (sleep) state because the processor is not executing code and no work is being accomplished for the user when in the sleep state. Therefore, no new audible and visual indicators are generated in the sleep state and it is not necessary to operate these indicators. As to applicant's assertion that Microsoft's low-power sleep state is not a visual off state, the examiner disagrees with this assertion. Applicant has pointed to the description of visual off in paragraph 13 of the specification as articulating the meaning of the claimed visual off. However, paragraph 13 merely describes that data processing devices **may be** configured to include the described visual off state. Paragraph 35 of the specification indicates that the embodiments described in the specification are merely exemplary and that modifications and changes may be made without departing from the broader spirit and scope set forth in the claims. Therefore, the claimed term visual off has not been defined in applicant's broad specification and it is improper to read the description of paragraph 13 into the claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, Microsoft

teaches the visual off state as described in paragraph 13 of the specification. Microsoft describes that the OnNow PC appears to the user to be either on or off. Therefore, Microsoft convinces the user their PC is off when they give the user the appearance the PC is off. Microsoft describes giving the user the appearance (convincing) that the PC is off when it is actually in the sleep state and capable of responding to (processing) wake-up events (requests) such as a modem or network communication. Microsoft teaches the visual off state as described in paragraph 13 of the specification. However, the examiner need only reject applicant's claims, not applicant's specification. The claimed visual off state is obvious in view of the teachings and suggestions of Microsoft and Shintani.

As to point B, In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., power levels) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The term visual off state has not been defined in applicant's broad specification and it is improper to read limitations from the specification into the claims. Arguments that amount to a general allegation that the claims define a patentable invention without specifically pointing out **how the language of the claims** patentably distinguishes them from the references do not comply with 37 CFR 1.111(b). Applicant continues to argue the language of the specification and the language of Microsoft

rather than the language of the claims. As described in the previous response, such arguments do not comply with the rules of practice.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis M. Butler whose telephone number is 571-272-3663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dennis M. Butler
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Art Unit 2115